

## **ABSTRACT**

Acoustic waves are used to transfer small amounts of fluid in a non-contact manner. Acoustic waves are propagated through a pool of a source fluid in such a manner that causes the ejection of a single micro-droplet from the surface of the pool. The droplet is ejected towards a target with sufficient force to provide for contact of the droplet with the target. Because the fluid is not contacted by any fluid transfer device such as a pipette, the opportunities for contamination are minimized. Methods may be employed to transfer fluids from an array of source sites to an array of target sites, thereby enabling the precise automation of a wide variety of procedures including screening and synthesis procedures commonly used in biotechnology.